

# **ABSTRACT**

Disclosed are a GaN-based semiconductor light emitting diode, in which transmittance of electrodes is improved and high-quality Ohmic contact is formed, and a method for manufacturing the same, thus improving luminance and driving voltage properties. The GaN-based semiconductor light emitting diode includes: a substrate on which a GaN-based semiconductor material is grown; a lower clad layer formed on the substrate, and made of a first conductive GaN semiconductor material; an active layer formed on a designated portion of the lower clad layer, and made of an undoped GaN semiconductor material; an upper clad layer formed on the active layer, and made of a second conductive GaN semiconductor material; and an alloy layer formed on the upper clad layer, and made of a hydrogen-storing alloy. The GaN-based semiconductor light emitting diode improves a luminance property and reduces Ohmic resistance, thus obtaining high-quality Ohmic contact.